

Map ID
Direction
Distance
Elevation

MAP FINDINGS

EDR ID Number
EPA ID Number

C28
North
< 1/8
0.107 mi.
564 ft.

K - FORMER BROOKLYN BOROUGH GAS WORKS
2731 WEST 12TH STREET
BROOKLYN, NY 11224

NY SHWS S105586297
N/A

Site 2 of 3 in cluster C

Relative:
Higher

Actual:
5 ft.

SHWS:

Name: K - FORMER BROOKLYN BOROUGH GAS WORKS
Address: 2731 WEST 12TH STREET
City,State,Zip: BROOKLYN, NY 11224
Program: HW
Site Code: 55916
Classification: Site is properly closed - requires continued management.
Region: 2
Acres: 17.600000000000001
HW Code: 224026
Record Add: 11/18/1999
Record Upd: 01/25/2019
Updated By: JEBROWN

Site Description: Location: The former Brooklyn Borough Gas Works site (Site # 224026) is located in the Borough of Brooklyn, Kings County, New York, at 873 Neptune Avenue, Coney Island. The site is bordered by the right of way of the Belt Parkway and the New York Metropolitan Transit Authority (MTA) rail-yard to the north and west, and Coney Island Creek to the south and east. The site is approximately 17.6 acres in size. Site Features: The site is relatively flat and is located in a residential/commercial area of Brooklyn. The site is bordered on the south by Coney Island Creek, to the north by an elevated portion of the Belt Parkway and the MTA rail yard. To the east of the site is the Gill Hodges Little League field (now closed) and to the west are railroad tracks. Current Zoning: The site is zoned for Commercial/Industrial use. Past Use of the Site: Former Manufactured Gas Plant operations ceased at this site in 1951. The gas manufacturer operated a carburated water gas plant which was constructed between 1908 and 1912. The facility included two large-capacity gas holders, a station metering house, two underground and five above ground gas oil tanks, tar conditioners and seal pumps, three tar separators, four generators, a coal storage yard, pump rooms, booster and exhaustor rooms, two condensers, eight purifier boxes, two relief holders, an electric tar precipitator, a tar dehydrator system, tar storage tanks, oil pumps, and drip oil tanks. From 1960 to 1966 the site was almost completely decommissioned and demolished. Some components were used for natural gas service until they were demolished in the early 1980's. Operable Units: The site was divided into three operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. Operable unit 1 (OU1) is containment of the upland area by means of a cut-off wall. OU2 consists of excavation of the top 3 feet of Coney Island Creek Sediment, placement of clean fill on a geotextile and fabric, and installation of a 50 foot-wide ecological buffer zone along the creek's bank. OU3 includes removal and disposal of contaminated soil in selected areas, installation of a NAPL recovery trench, and installation of an impermeable cap. Site Geology and Hydrology: Site investigations revealed site geology consisting of unconsolidated Pleistocene deposits from 10 to 172 feet below ground surface (BGS) that consist mainly of fine to coarse grained sands with a clay/silt layer from 59 to 60 feet BGS and clay from 170 to 172 feet BGS. The

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Env Problem:

sand, which at some depths contained a trace of gravel, varied with depth in grain size and color. Above the Pleistocene deposits is a thin (5 to 10 feet) layer of near shore and estuary type deposits. The glacial aquifer encountered at the site is composed almost entirely of the sands of the till and out-wash deposits and extends from just below the surface to 170 feet BGS. Coney Island Creek is approximately 1.6 miles long, emerging from a culvert under Shell Road just east of the site. The creek is a small tidal creek which flows in a southwesterly direction, then turns and flows in a northwesterly direction to Gravesend Bay which empties into lower New York Bay and, ultimately the Atlantic Ocean.

Prior to remediation: Nature and Extent of Contamination: The main categories of contaminants which exceeded their SCGs in all Operable Units were polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and inorganics. The carcinogenic PAH contaminants of concern were chrysene, dibenzo(a,h)anthracene, benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, and Indeno(1,2,3-cd)pyrene. The VOC contaminants of concern included benzene, toluene, ethylbenzene and xylene (BTEX), and acetone. The inorganic contaminants of concern included but were not limited to the following arsenic, lead, manganese, nickel and zinc. Contaminated soil on the site exhibited high levels of benzene. Most of the contaminants were detected primarily at a depth of 4 to 12 feet below ground surface across the entire site. Throughout the entire site, total PAHs were observed in soil at concentrations ranging from less than 1 ppm to over 40,000 ppm and BTEX constituents were detected at concentrations ranging from 0.0014 ppm to 1,600 ppm. Below the groundwater table, total PAHs were observed in soil at concentrations ranging from non detect to 4,500 ppm and total BTEX ranged from no detect to 175 ppm. The

majority of the source materials were typically located within the upper six feet of the soil, just above the groundwater table. In the OU2 area, surface sediments, defined as the uppermost four inches of sediments in Coney Island Creek, were contaminated with the same VOC, SVOC and metal contaminants present on-site. BTEX compounds were detected in 11 of 30 surface sediment samples, with benzene, toluene, ethylbenzene and xylenes concentrations ranging between 0.0023 and 13 ppm. Individual PAHs were detected at concentrations ranging from 0.13 to 72 ppm in 29 of the 30 samples collected. The maximum concentrations of TPAHs and cPAHs detected in the surface sediment were 120 and 8 ppm respectively. Twenty-three metals were detected in the surface sediment samples. The highest concentrations of metals, including lead at a concentration of over 2,000 ppm, were detected at sampling locations adjacent to the combined sewer overflow and storm water outfalls and are probably not MGP-related. Subsurface sediments are defined as the sediments between 4 inches and 6 to 10 feet below the sediment surface. Individual BTEX constituents were detected in 34 of the 66 subsurface sediments samples collected with concentrations ranging from 0.0006 to 300 ppm, and a maximum total BTEX of 364 ppm. Individual PAHs were detected, at concentrations ranging from 0.036 to 200 ppm, in 74 of 99 samples. The maximum concentration of TPAH detected in the subsurface sediment was 819 ppm. Elevated concentration of PAHs were detected at depth of 6 to 10 feet below the sediment surface in the source areas adjacent to the southwest portion of the former MGP site. Metals, including arsenic and lead at concentrations ranging from 61 to 3,300 ppm respectively were detected in subsurface sediments. Post-Remediation: Remediation at the site is complete. All remedial elements, except for the on-site Groundwater Treatment Plant, which was deleted from the

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remedy in February 2012, have been completed. The remedy included the excavation of the coal tar source area in the upland portions of the site, resulting in the off-site disposal of 86,200 tons of impacted soil. The remedy also included construction of a low permeability cap over the upland portions of the site to minimize exposure pathways and prevent rainwater infiltration, and the installation of coal tar collection wells in a collection trench. The top three feet of contaminated sediments across the entire length and width of the Coney Island Creek adjacent to the site were dredged and replaced with clean sediment. Special Resources Impacted/Threatened: Prior to remediation, the contamination in Coney Island Creek was sufficient to cause an adverse, acute or chronic effect to fish, shellfish, crustacea and other wildlife. This threat has been mitigated. Significant Threat: The significant threat that existed prior to remediation no longer exists at the site. The site is being managed under a Site Management Plan.

Health Problem:

Since the site is fenced and covered with an engineered soil cover system, people will not come into contact with site-related soil and groundwater contamination unless they dig below the surface. People are not drinking the contaminated groundwater since the area is served by public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The site is vacant therefore soil vapor intrusion is currently not an issue. However, the potential exists for people to inhale site contaminants in indoor air due to soil vapor intrusion in any future on-site building development and occupancy.

Dump: True
Structure: False
Lagoon: False
Landfill: False
Pond: False
Disp Start: 1908
Disp Term: 1980s
Lat/Long: 40:34:53:0 / 73:58:45:0
Dell: False
Record Add: 1999-11-18 12:00:00
Record Upd: 2013-01-04 14:38:00
Updated By: LXDOLATA
Own Op: Disp. Owner
Sub Type: NNN
Owner Name: Not reported
Owner Company: BROOKLYN BOROUGH GAS COMPANY
Owner Address: Not reported
Owner Addr2: Not reported
Owner City,St,Zip: NY
Owner Country: United States of America
Own Op: Document Repository
Sub Type: C05
Owner Name: Chuck Reichenenthal
Owner Company: Community Board 13
Owner Address: 2900 W. 8th Street
Owner Addr2: Not reported
Owner City,St,Zip: Brooklyn, NY 11224
Owner Country: United States of America
Own Op: Owner

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Sub Type: E
Owner Name: Charles Willard
Owner Company: National Grid
Owner Address: 300 Erie Blvd W
Owner Addr2: Not reported
Owner City,St,Zip: Syracuse, NY 13202
Owner Country: United States of America
Own Op: Owner
Sub Type: NNN
Owner Name: Real Estate Department
Owner Company: Metropolitan Transportation Authority
Owner Address: 347 Madison Avenue
Owner Addr2: Not reported
Owner City,St,Zip: New York, NY 10017
Owner Country: United States of America
HW Code: 224026
Waste Type: ACETONE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: ACETONE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: LEAD
Waste Quantity: UNKNOWN

Waste Code: Not reported
HW Code: 224026
Waste Type: LEAD
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: NAPHTHALENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: TOLUENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: BENZENE (D018)
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: PCBS
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: COAL TAR
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: COAL TAR
Waste Quantity: UNKNOWN
Waste Code: Not reported

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HW Code:	224026
Waste Type:	COAL TAR
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	COAL TAR
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	XYLENE (MIXED)
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	ARSENIC
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	ETHYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	ETHYLBENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	BENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	BENZENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	BENZ(A)ANTHRACENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	BENZ(A)ANTHRACENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	BENZO(B)FLUORANTHENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	BENZO(A)PYRENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	BENZO(A)PYRENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	1,2-BENZPHENANTHRENE
Waste Quantity:	UNKNOWN
Waste Code:	Not reported
HW Code:	224026
Waste Type:	1,2-BENZPHENANTHRENE
Waste Quantity:	UNKNOWN

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Waste Code: Not reported
HW Code: 224026
Waste Type: DIBENZ[A,H]ANTHRACENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: BENZO[K]FLUORANTHENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: BENZO[K]FLUORANTHENE
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: benzo(a)anthracene
Waste Quantity: UNKNOWN
Waste Code: Not reported
HW Code: 224026
Waste Type: benzo(a)anthracene
Waste Quantity: UNKNOWN
Waste Code: Not reported
Crossref ID: 2012000235857

Cross Ref Type Code: 25
Cross Ref Type: County Recording Identifier
Record Added Date: 2013-07-03 10:42:00
Record Updated: 2013-07-03 10:42:00
Updated By: SRHEIGEL
Crossref ID: NYD980532022
Cross Ref Type Code: 05
Cross Ref Type: EPA Site ID
Record Added Date: 1999-11-18 12:00:00
Record Updated: 2001-05-10 16:31:00
Updated By: REGTRANS